

FIG. 1A

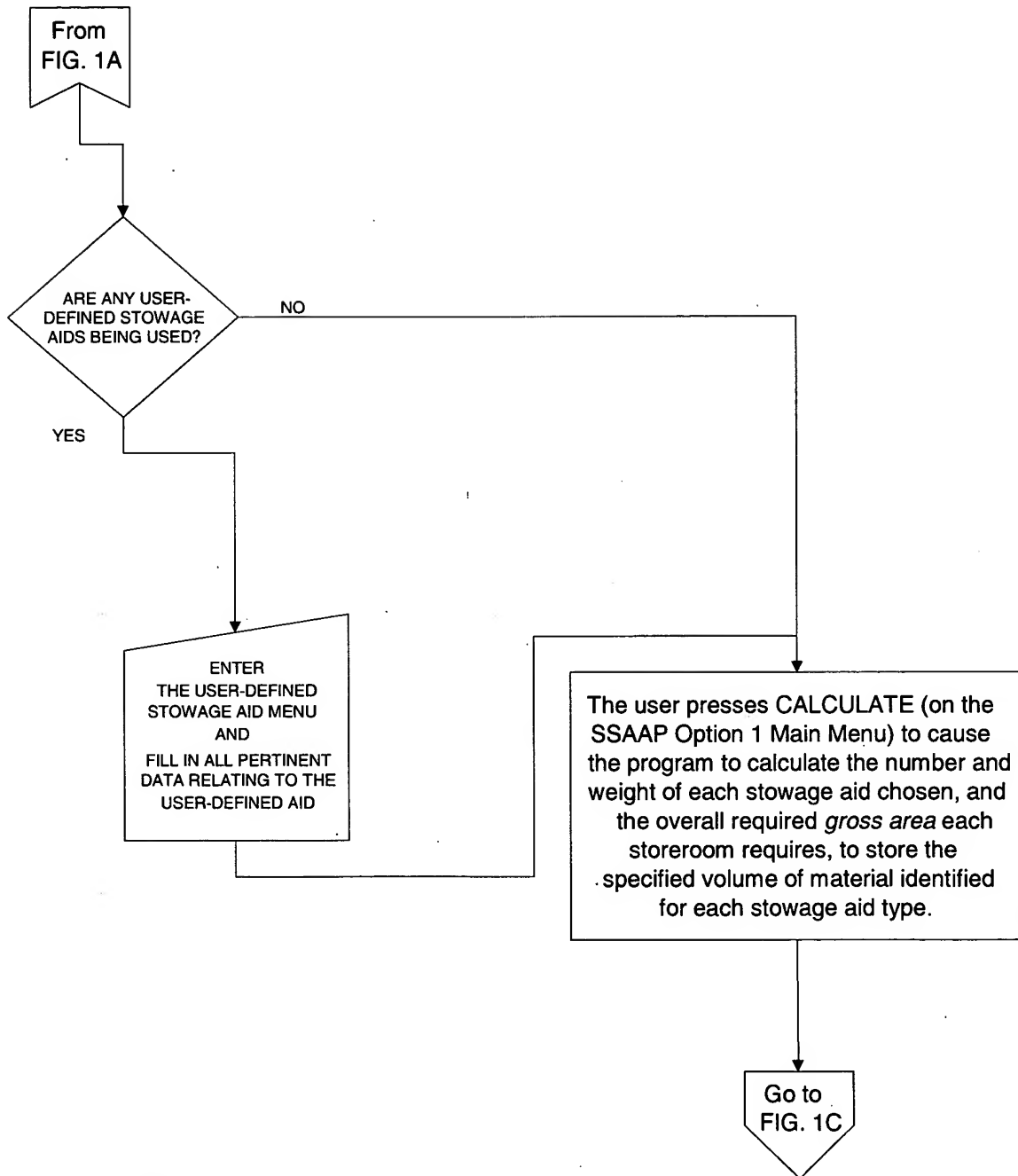


FIG. 1B

Determine the Amount (Volume) of Material to Be Stored in Each Stowage Aid Type

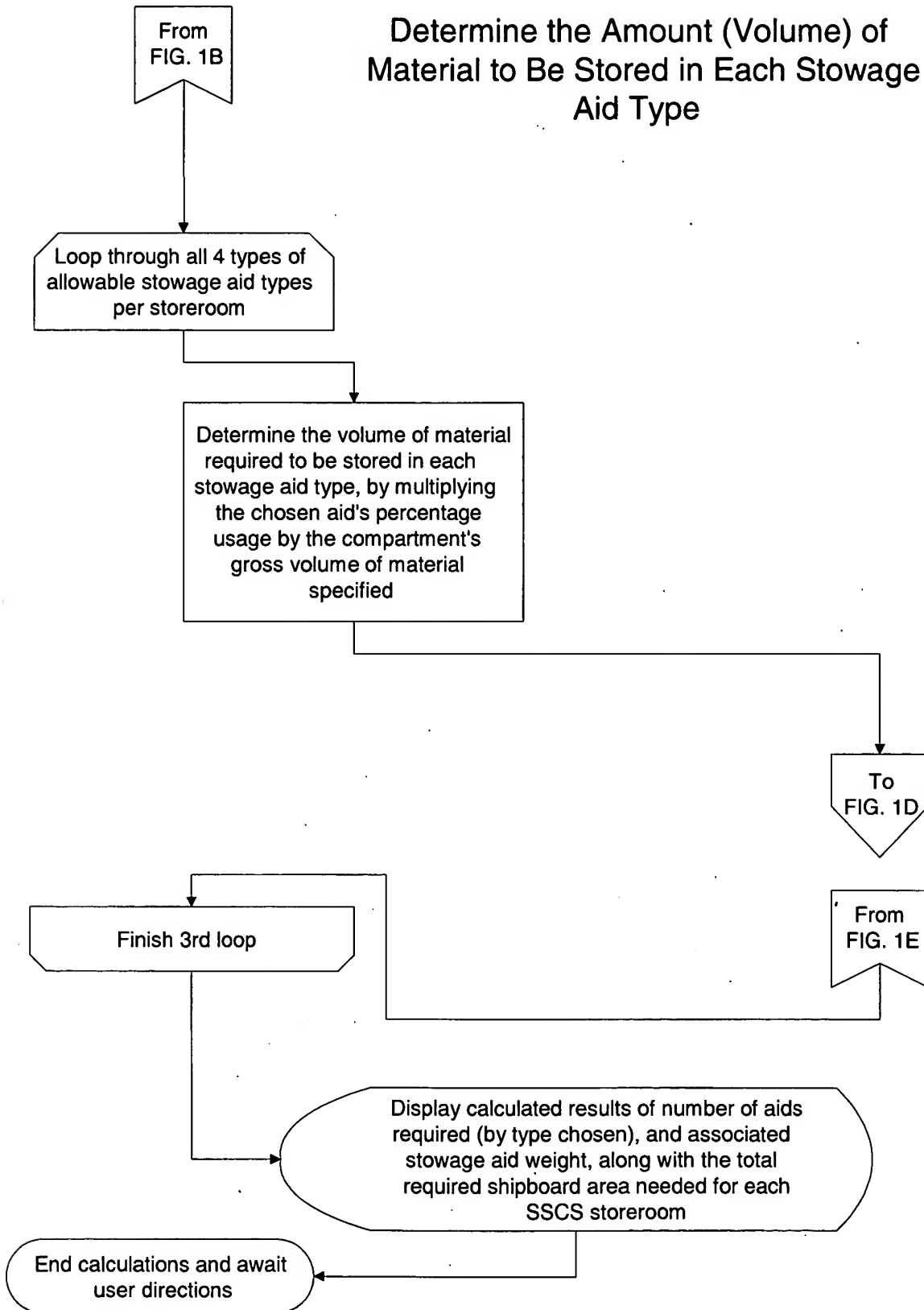


FIG. 1C

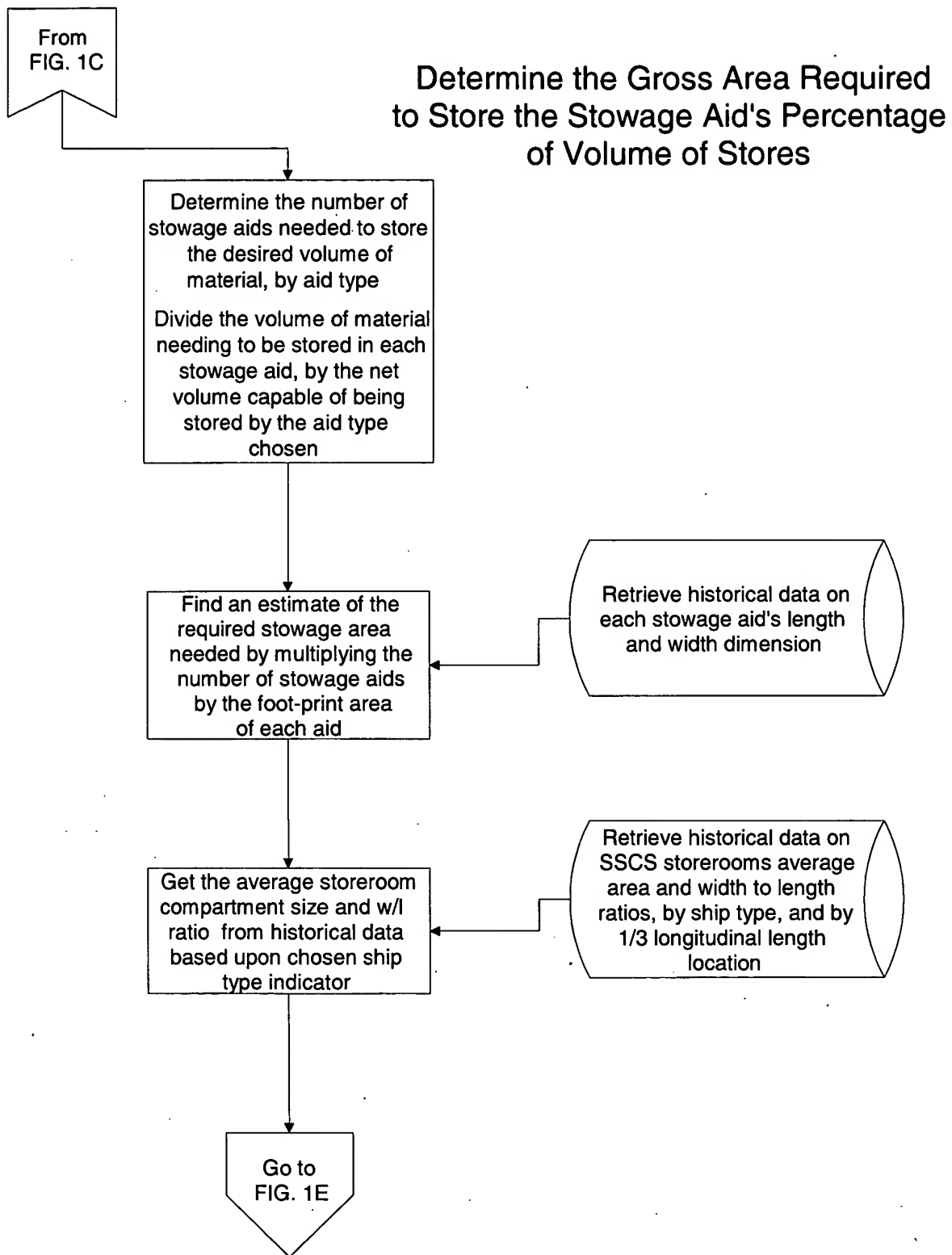


FIG. 1D

Example of Storeroom Area Calculations:

| | | |
|---|---|--------------------------------|
| Standard Historical Storeroom Area By Ship Type & Location | Standard Historical Storeroom Area By Ship Type & Location | Left Over Storeroom Area |
|---|---|--------------------------------|

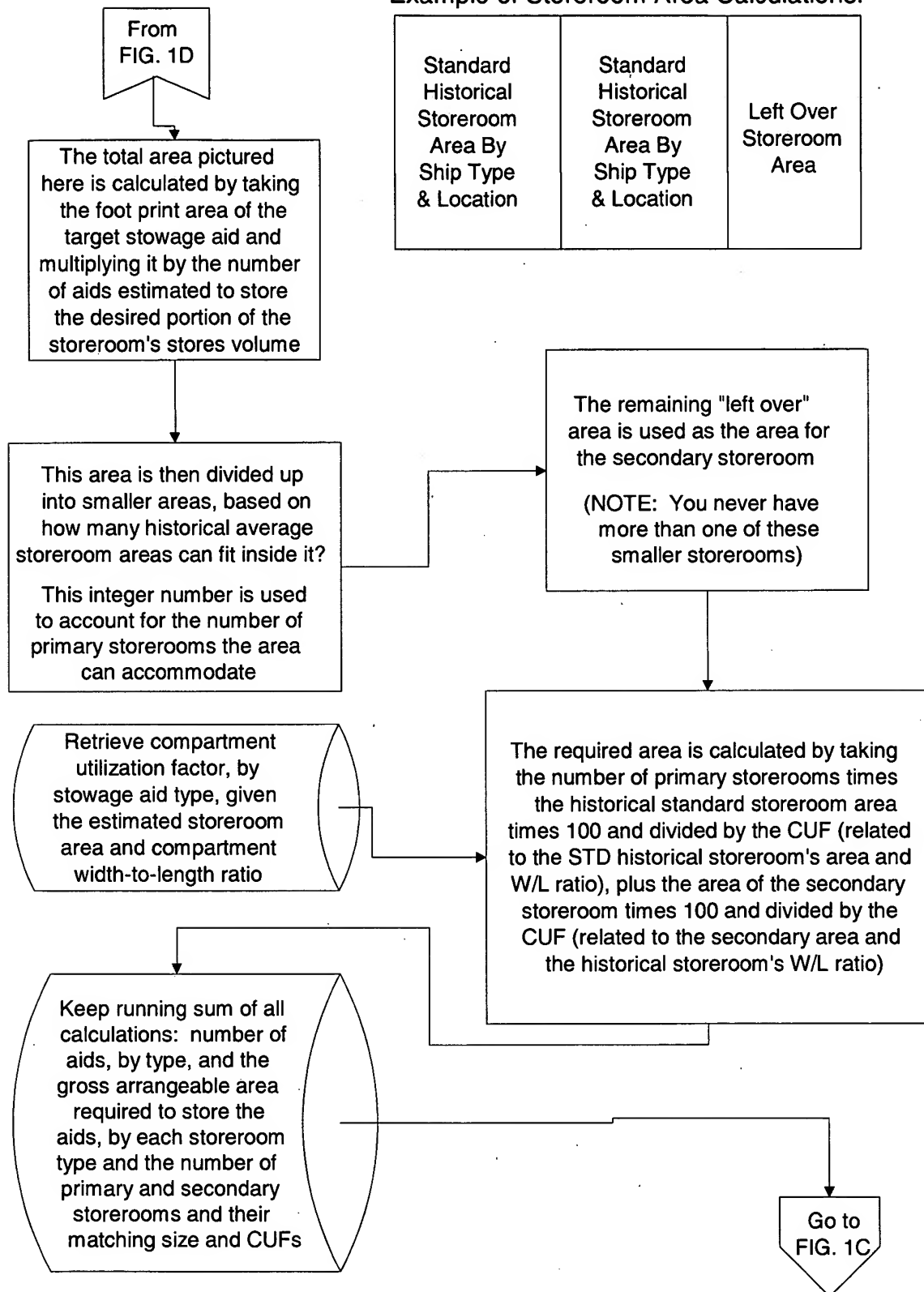


FIG. 1E

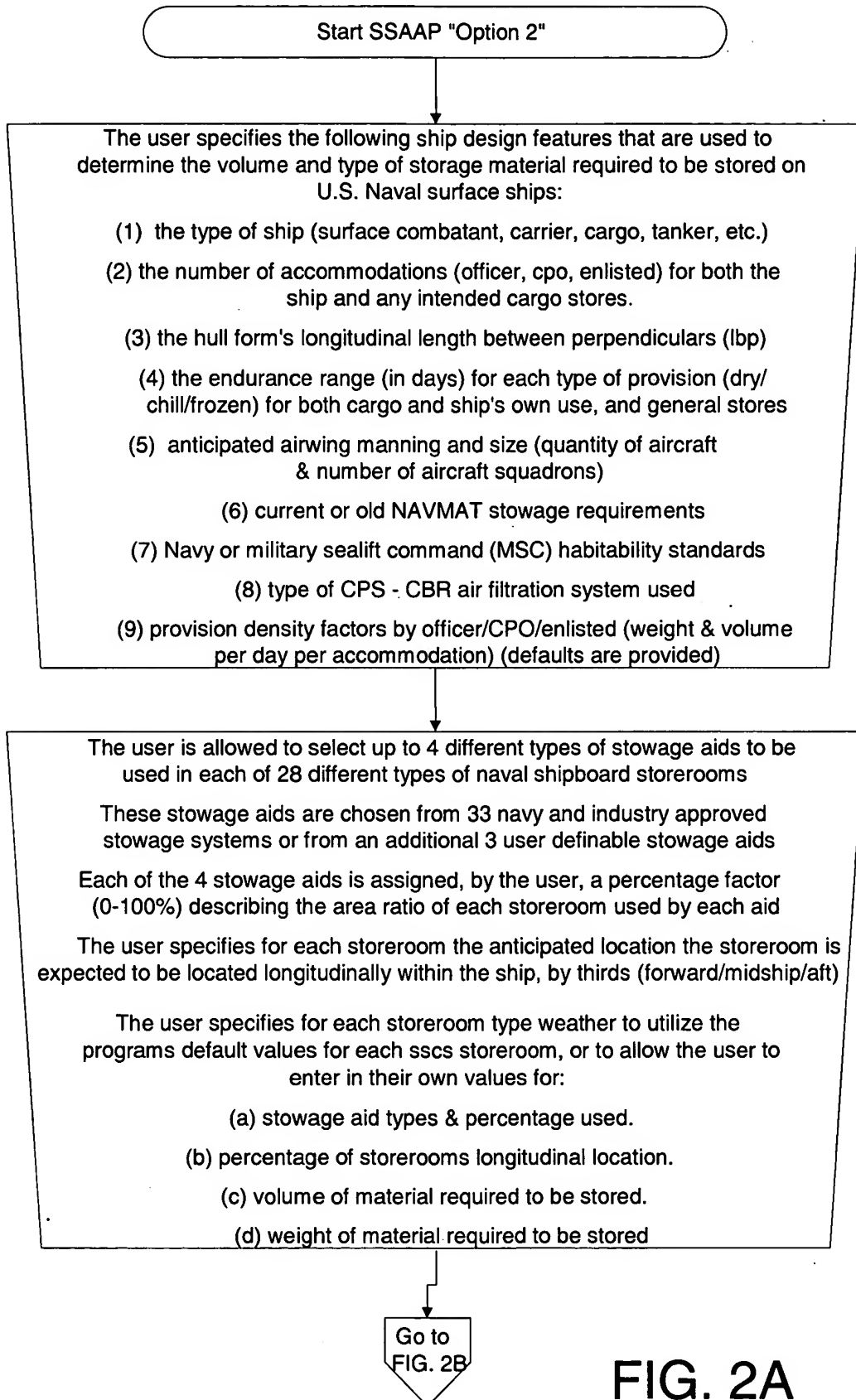


FIG. 2A

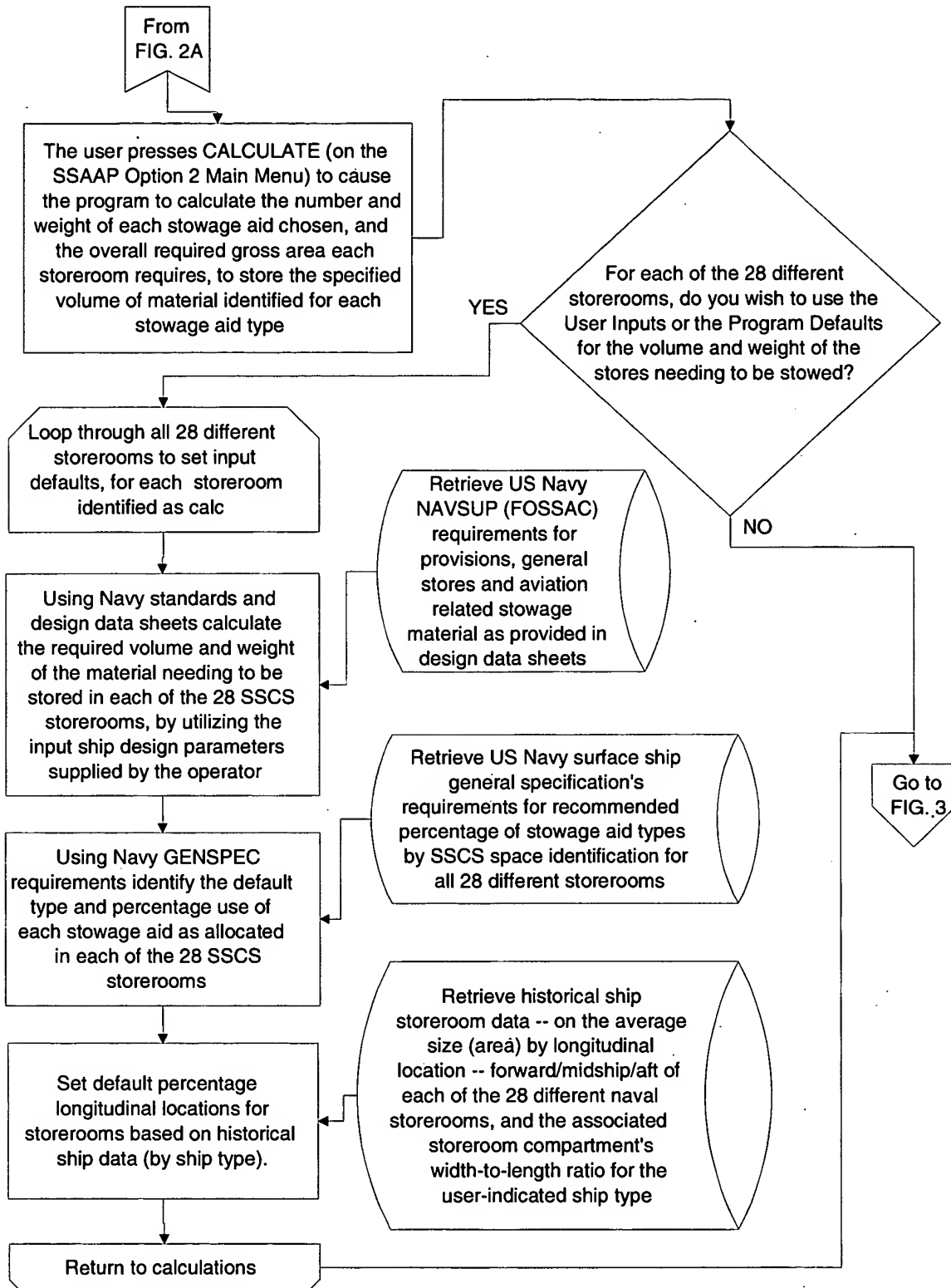


FIG. 2B

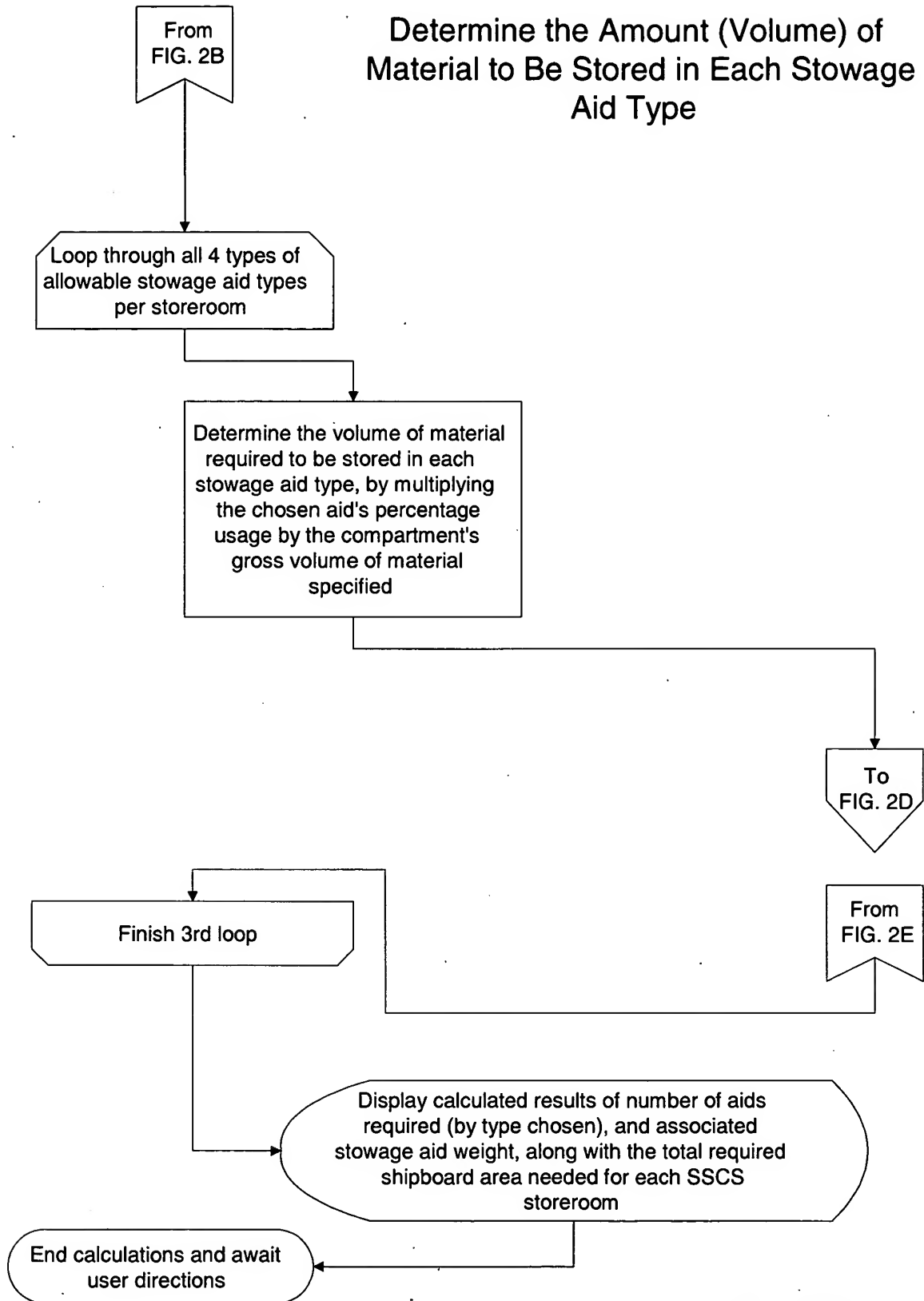


FIG. 2C

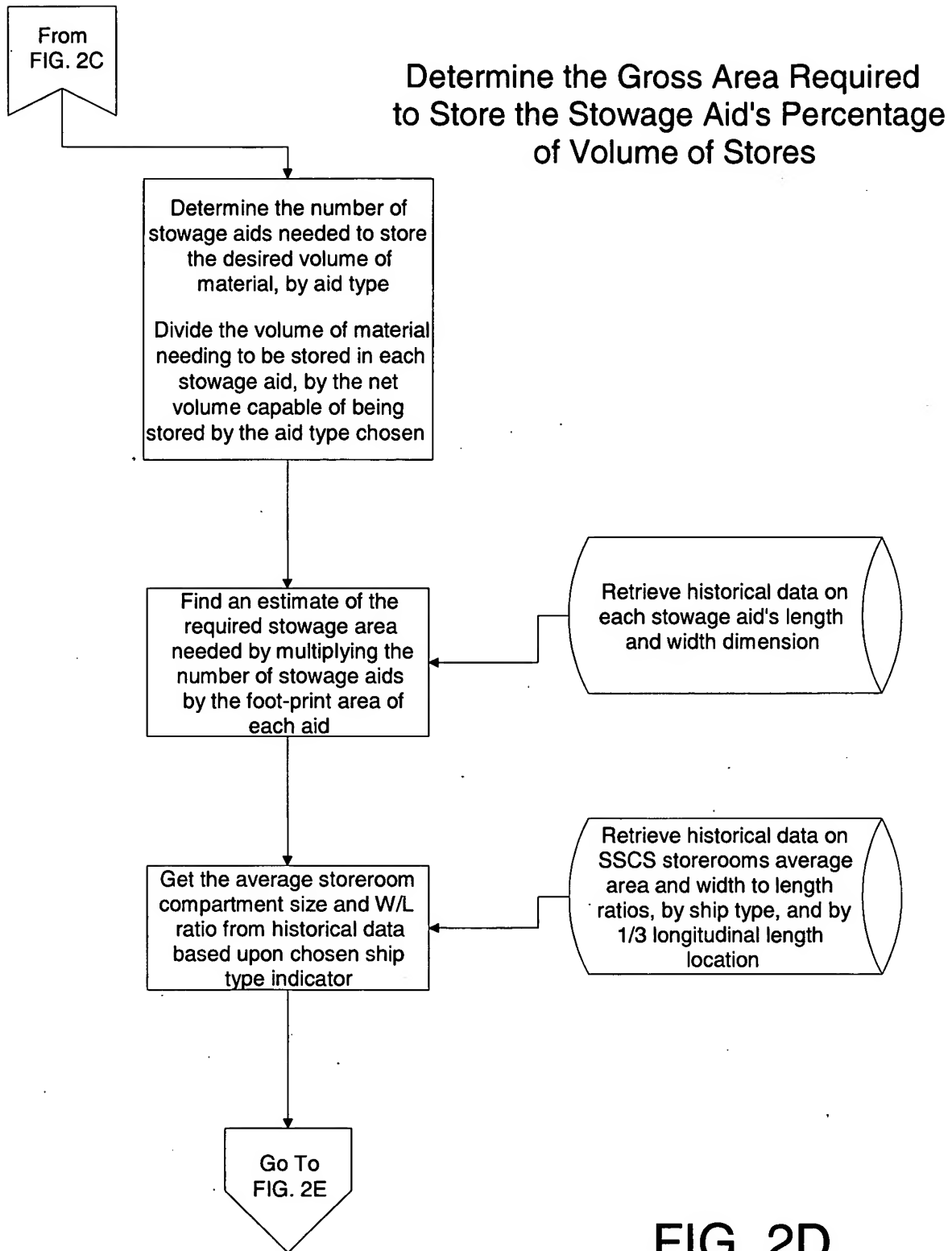


FIG. 2D

Example of Storeroom Area Calculations:

| | | |
|---|---|--------------------------------|
| Standard Historical Storeroom Area By Ship Type & Location | Standard Historical Storeroom Area By Ship Type & Location | Left Over Storeroom Area |
|---|---|--------------------------------|

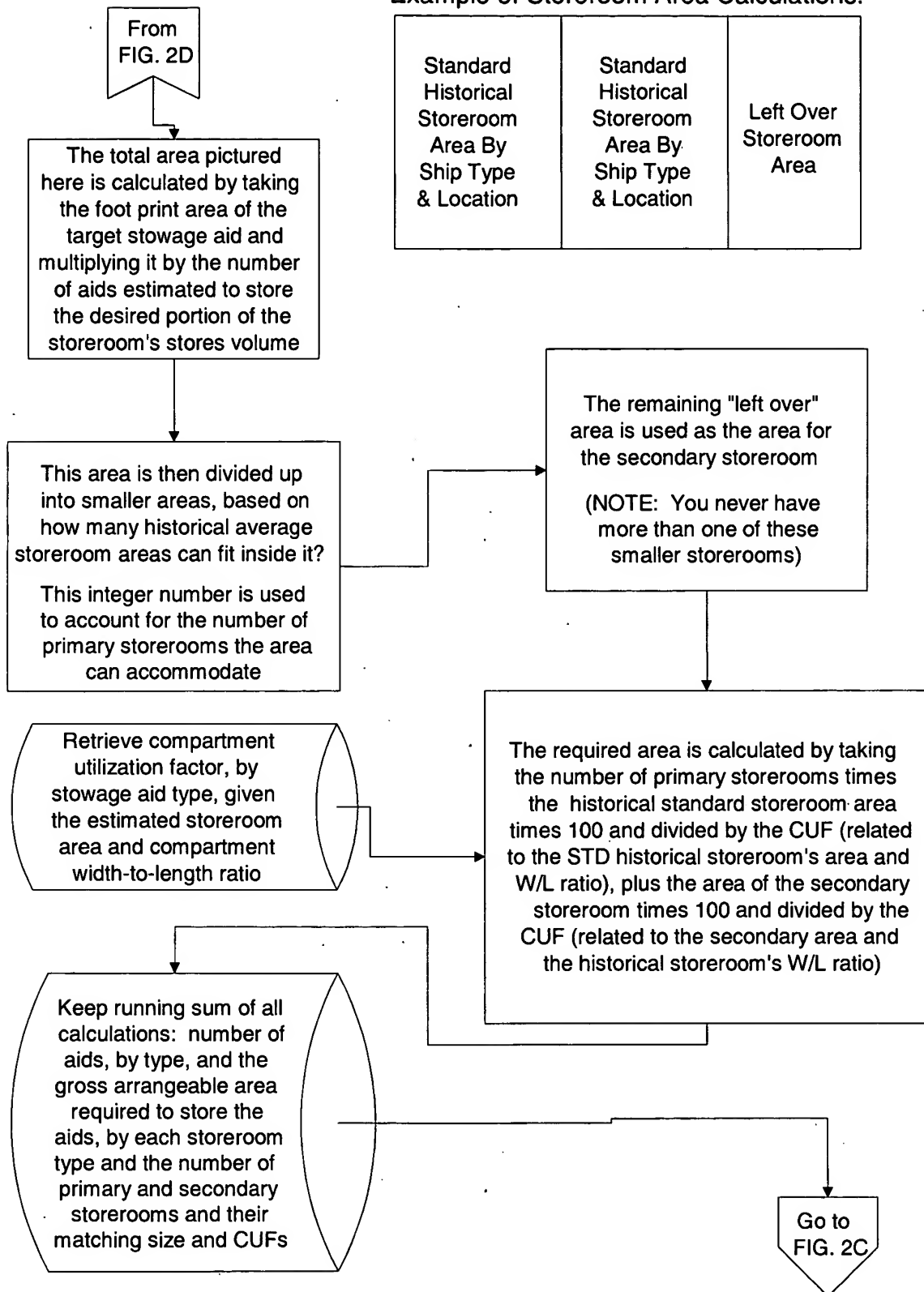


FIG. 2E

| AREA GROUP | STOREROOM DESCRIPTION | LOAD WEIGHT GROUP |
|--------------|-----------------------------|-----------------------|
| SSCS 1.3911 | AVN CONSUMABLE STOWAGE | LOADS ARE IN SWBS F26 |
| SSCS 1.3912 | AVN CONSUMABLE ISSUE | LOADS ARE IN SWBS F26 |
| SSCS 1.3922 | AVN ELECTRONIC REPAIR PARTS | LOADS ARE IN SWBS F26 |
| SSCS 1.3923 | AVN ORDNANCE REPAIR PARTS | LOADS ARE IN SWBS F26 |
| SSCS 1.394 | FLIGHT CLOTHING STOWAGE | LOADS ARE IN SWBS F16 |
| SSCS 1.397 | AVIATION SQUADRON STOWAGE | LOADS ARE IN SWBS F16 |
| SSCS 1.54103 | CARGO DRY PROVISIONS | LOADS ARE IN SWBS F62 |
| SSCS 1.54104 | CARGO FLAM LIQUID NON-FUEL | LOADS ARE IN SWBS F64 |
| SSCS 1.54107 | CARGO DRY CONSUMABLES | LOADS ARE IN SWBS F62 |
| SSCS 1.54112 | CARGO REPAIR PARTS | LOADS ARE IN SWBS F62 |
| SSCS 1.54121 | CARGO DRY BULK STOWAGE | LOADS ARE IN SWBS F62 |
| SSCS 1.54202 | CARGO CHILL PROVISIONS | LOADS ARE IN SWBS F62 |
| SSCS 1.54203 | CARGO FROZEN PROVISIONS | LOADS ARE IN SWBS F62 |
| SSCS 2.231 | CHILL PROVISIONS STOWAGE | LOADS ARE IN SWBS F31 |
| SSCS 2.232 | FROZEN PROVISION STOWAGE | LOADS ARE IN SWBS F31 |
| SSCS 2.233 | DRY PROVISION STOWAGE | LOADS ARE IN SWBS F31 |
| SSCS 2.34101 | MEDICAL & DENTAL STOWAGE | LOADS ARE IN SWBS F31 |
| SSCS 2.41002 | CLOTHING & SMALL STRS ISSUE | LOADS ARE IN SWBS F31 |
| SSCS 2.55 | FOUL WEATHER GEAR STOWAGE | LOADS ARE IN SWBS F32 |
| SSCS 2.62 | CBR DEFENSE EQUIP STOWAGE | LOADS ARE IN SWBS F32 |
| SSCS 3.7111 | FLAMMABLE LIQUID NON-FUEL | LOADS ARE IN SWBS F32 |
| SSCS 3.712 | SPECIAL CLOTHING STOWAGE | LOADS ARE IN SWBS F31 |
| SSCS 3.7131 | SHIP CONSUMABLE STOWAGE | LOADS ARE IN SWBS F32 |
| SSCS 3.7132 | SHIP CONSUMABLE ISSUE | LOADS ARE IN SWBS F32 |
| SSCS 3.714 | SUPPLY DEPT STRMS (BULK) | LOADS ARE IN SWBS F32 |
| SSCS 3.74 | DECK DEPT STOWAGE | LOADS ARE IN SWBS F32 |
| SSCS 4.34203 | TRASH STOWAGE (BULK) | LOADS ARE N/A |

FIG. 3

| # | AID NAME | EMPTY WEIGHT | STOWAGE AID UTILIZATION FACTOR |
|----|--------------------|------------------|-----------------------------------|
| 1 | A-DRAWER | 607.0 lbs | SAUF = 70.0% |
| 2 | B-DRAWER | 457.0 lbs | SAUF = 69.6% |
| 3 | B-BIN-36 | 169.0 lbs | SAUF = 52.9% |
| 4 | B-BIN-24 | 128.0 lbs | SAUF = 52.9% |
| 5 | Dry-BULK | 42.6 lbs/sq-ft | SAUF = 90.0% |
| 6 | Chill-BULK | 46.0 lbs/sq-ft | SAUF = 88.0% |
| 7 | Frozen-BULK | 48.4 lbs/sq-ft | SAUF = 88.0% |
| 8 | C-RACK | 890.7 lbs | SAUF = 57.4% |
| 9 | E-COUNTER | 483.5 lbs | SAUF = 32.4% |
| 10 | F-BIN | 166.0 lbs | SAUF = 46.5% |
| 11 | I-BIN | 418.0 lbs | SAUF = 66.7% |
| 12 | J-BIN | 198.0 lbs | SAUF = 64.9% |
| 13 | J-RACK-Aluminum | 198.0 lbs | SAUF = 62.6% |
| 14 | J-RACK-Steel | 553.0 lbs | SAUF = 62.6% |
| 15 | K-RACK-Aluminum | 205.0 lbs | SAUF = 66.8% |
| 16 | K-RACK-Steel | 594.0 lbs | SAUF = 66.8% |
| 17 | L-COUNTER | 153.4 lbs | SAUF = 47.7% |
| 18 | M-RACK | 1131.3 lbs | SAUF = 53.1% |
| 19 | MDS | 452.4 lbs | SAUF = 70.0% |
| 20 | MDS-Small Version | 401.9 lbs | SAUF = 70.0% |
| 21 | N-RACK | 1314.0 lbs | SAUF = 43.7% |
| 22 | O-BIN | 246.4 lbs | SAUF = 47.1% |
| 23 | R-RACK 4 shelf | 290.0 lbs | SAUF = 75.0% |
| 24 | R-RACK 6 shelf | 379.0 lbs | SAUF = 75.0% |
| 25 | S-BIN | 97.0 lbs | SAUF = 47.2% |
| 26 | S-RACK 4 shelf | 244.0 lbs | SAUF = 75.0% |
| 27 | S-RACK 6 shelf | 310.0 lbs | SAUF = 75.0% |
| 28 | T-RACK | 402.8 lbs | SAUF = 66.6% |
| 29 | PALLET- BULK | f(area, # strms) | SAUF = 90.0% |
| 30 | PALLET- BIN | f(area, # strms) | SAUF = 62.6% |
| 31 | ISLE-SAVER 3 shelf | 621.5 lbs | SAUF = 60.0% |
| 32 | ISLE-SAVER 4 shelf | 649.0 lbs | SAUF = 58.5% |
| 33 | USER DEFINED 1 | User Input, lbs | SAUF= User Input, % |
| 34 | USER DEFINED 2 | User Input, lbs | SAUF= User Input, % |
| 35 | USER DEFINED 3 | User Input, lbs | SAUF= User Input, % |

FIG. 4

COMPARTMENT LENGTH TO COMPARTMENT WIDTH RATIO

| | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 |
|------|------|------|------|------|------|------|------|------|------|------|
| 50 | 9.7 | 9.7 | 9.7 | 9.7 | 9.7 | 14.6 | 9.7 | 9.7 | 14.6 | 14.6 |
| 100 | 12.2 | 12.2 | 12.2 | 12.2 | 14.6 | 12.2 | 12.2 | 14.6 | 14.6 | 12.2 |
| 150 | 13.0 | 13.0 | 17.8 | 14.6 | 14.6 | 13.0 | 11.3 | 16.2 | 17.8 | 17.8 |
| 200 | 10.9 | 10.9 | 15.8 | 14.6 | 14.6 | 17.0 | 20.6 | 18.2 | 17.0 | 15.8 |
| 250 | 18.5 | 18.5 | 14.6 | 13.6 | 16.5 | 20.4 | 17.5 | 17.5 | 16.5 | 18.5 |
| 500 | 19.9 | 14.1 | 22.8 | 19.0 | 19.4 | 19.4 | 20.4 | 19.4 | 17.5 | 19.0 |
| 1000 | 14.6 | 20.2 | 20.4 | 20.6 | 21.6 | 23.1 | 21.1 | 21.4 | 22.1 | 21.6 |
| 1500 | 23.5 | 20.9 | 20.2 | 23.0 | 20.6 | 22.8 | 21.0 | 23.5 | 23.0 | 23.3 |
| 2000 | 20.8 | 21.7 | 23.2 | 22.7 | 22.8 | 24.4 | 21.9 | 23.4 | 23.4 | 23.4 |
| 2500 | 22.9 | 22.9 | 20.9 | 22.4 | 24.2 | 23.9 | 23.9 | 23.9 | 23.9 | 23.9 |
| 3000 | 23.2 | 23.2 | 23.6 | 25.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 | 24.0 |
| 3500 | 22.1 | 22.1 | 22.2 | 23.2 | 23.2 | 23.2 | 23.2 | 23.2 | 23.2 | 23.2 |
| 4000 | 23.0 | 23.0 | 24.8 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 | 23.6 |

COMPARTMENT AREA (SQUARE FEET)

FIG. 5

| | |
|---------------------------------------|---|
| COMPARTMENT UTILIZATION FACTOR (CUF) | The storeroom net volume, divided by the storeroom gross volume, times the stowage aid utilization factor, and converted to a percentage by multiplying by 100. |
| STOWAGE AID UTILIZATION FACTOR (SAUF) | The stowage aid's net volume, divided by the gross volume occupied by the stowage aid, times the packing factor, and converted to a percentage by multiplying by 100. |
| PACKING FACTOR | The statistical average of the ratio of the material net volume to the stowage capacity of a particular stowage aid, as surveyed to exist in naval ships (Usually developed and reported by FOSAC for use in the U.S. Navy). |
| USABLE DECK AREA | The net arrangeable deck area of a shipboard storeroom compartment, bounded by the ship's shell deck edge and vertical bulkheads, taking into account losses of area due to bulkhead stiffeners, piping, wireways, insulation and vent ducts. |
| MATERIAL NET VOLUME | The actual volume of the material to be stored, including packaging material if the packing material is required for proper stowage. |
| STOREROOM GROSS VOLUME | The volume of the compartment within the boundaries of vertical bulkheads and the deck edge of shell plating intersections, from the deck to the maximum allowable material stowage height (e.g., 6.5 feet maximum allowed for most systems). |
| STOREROOM NET VOLUME | The volume of the compartment available for the material to be stored and any required stowage aids and required clearances and aisles. Calculated as the product of the usable deck area and the stowage height. |
| STOWAGE AID | Any piece of equipment or fittings used for stowage, including bins, drawer and shelf units, lockers, modular drawer stowage cabinets, reels, shelving, clips, jackrods and portable or telescopic battens with grating. |
| STOWAGE AID CAPACITY | The usable stowage volume provided by a stowage aid, divided by the gross volume (the stowage aid's foot print times the stowage aid's height) of the stowage aid. |
| STOWAGE HEIGHT | The clear height to which stores are to be stacked. Usually defined as the 6 feet and 6 inches above the deck or deck grating (notable exception being for refrigerated storerooms, where the height is 6 feet and 0 inches above the grating). However, a minimum of 6 inches clear space is required above bulk material, and the stowage height must not incorporate this clearance. For cargo storerooms, the stowage height is the height that provides the required clear space of 6 inches above the bulk stowage material and that is not to be less than 6 feet and 3 inches, which is required for headroom for surface ship personnel. |

FIG. 6

KSW PALLET STOWAGE SYSTEM

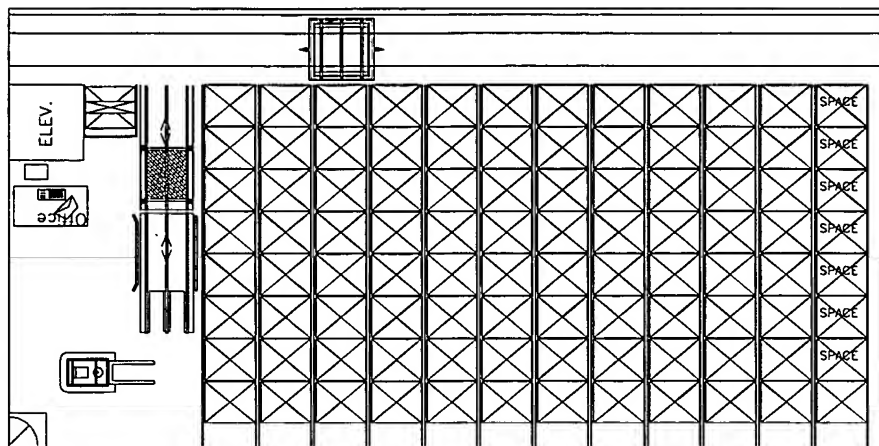


FIG. 7

SPACESAVER STOWAGE SYSTEM

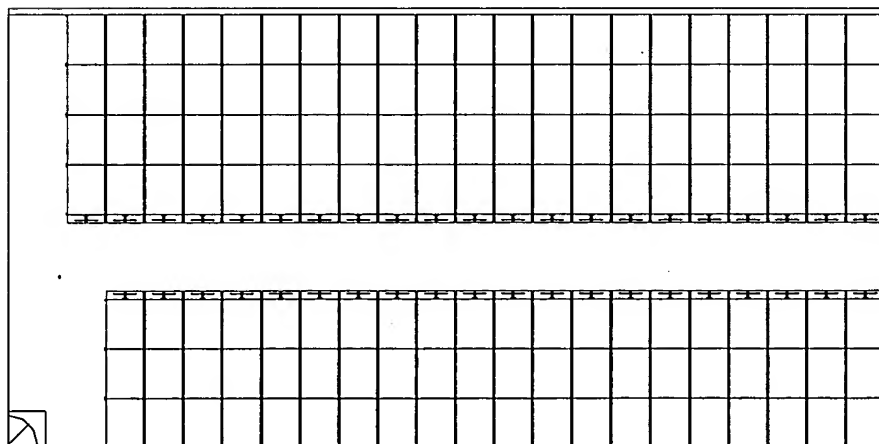


FIG. 8